Hermite Ornstein–Uhlenbeck processes mixed with a Gamma distribution

By SOUKAINA DOUISSI (Marrakesh), KHALIFA ES-SEBAIY (Kuwait)
and CIPRIAN A. TUDOR (Villeneuve d'Ascq)

Abstract. We construct a long-memory non-Gaussian stochastic process by aggregation, as limit of the empirical mean of identically distributed copies of Ornstein–Uhlenbeck processes with Hermite noise and random coefficients. We also study the asymptotic behavior of the process with respect to its parameter.

SOUKAINA DOUISSI
FACULTY OF SCIENCES SEMLALIA
CADI AYYAD UNIVERSITY
MARRAKESH
MOROCCO

KHALIFA ES-SEBAIY
DEPARTMENT OF MATHEMATICS
FACULTY OF SCIENCE
KUWAIT UNIVERSITY
KUWAIT

CIPRIAN A. TUDOR
LABORATOIRE PAUL PAINLEVÉ
CNRS UMR 8524
UNIVERSITÉ DE LILLE 1
59655 VILLENEUVE D'ASCQ
FRANCE
AND
ISMMA
ROMANIAN ACADEMY
ROMANIA